

**Listing of Claims:**

1. (Currently Amended) A method for determining down-regulation of gene expression of a human immunodeficiency virus (HIV) coreceptor, comprising the steps of:
  - a) culturing cells capable of expressing said human HIV coreceptor;
  - b) dividing said cultured cells into a plurality of groups;
  - c) introducing ~~predetermined progressively increasing~~ amounts of Product R at concentrations between 0 to 100% ~~, by volume~~, to said plurality of groups of said cultured cells, respectively, by electroporation;
  - d) culturing said plurality of groups of said electroporated cells;
  - e) preparing a total RNA from each said group of said cultured electroporated cells after step d, respectively;
  - f) reverse-transcribing the mRNA of said HIV coreceptor from each said total RNA by a reverse transcription-polymerase chain reaction (RT-PCR) to produce an RT-PCR product;
  - g) measuring the amount of said RT-PCR product produced from each said group of said cells; and
  - h) comparing each said amount of said RT-PCR product produced from each said group with each other, whereby a smaller amount of said RT-PCR product correlates a lower level of said gene expression, wherein Product R is made by a process comprising the steps of:
    - a') mixing 33.8 to 38.8 ~~parts by weight~~ grams of casein, 15.3 to 20.3 ~~parts by weight~~ grams of beef peptone, 20.3 to 25.3 ~~parts by weight~~ grams of ribonucleic acid (RNA), 0.9 to 5.9 ~~parts by weight~~ grams of bovine serum albumin and 0.1 to 5.1 ~~parts by weight~~ 2437.5 to 2562.5 ~~grams~~ of water and 14.6 to 19.6 ~~parts by weight~~ grams of sodium hydroxide;

b') autoclaving the mixture from said step a' until RNA is completely digested;

c') cooling the product from said step b' for at least six hours at 3-8 °C, said cooled product comprising solids;

d') removing said solids from the product from said step c';

e') adding water to the product from said step d' to create a final volume of about 5 liters; and

f) adjusting the pH of the product from said step e' to a physiologically acceptable pH range pH 7.3-7.6.

2. (Previously presented) The method of claim 1, wherein said HIV coreceptor is CCR5.

3. (Previously presented) The method of claim 1, wherein the reduction of the amount of said RT-PCR product is determined by electrophoresis.

4. (Previously presented) The method of claim 1, wherein said electroporated cells are cultured for 14 hours to 18 hours.

Claims 5-6 (Canceled)

7. (Currently Amended) A method for determining down-regulation of gene expression of a human immunodeficiency virus (HIV) coreceptor, comprising the steps of:

a) dividing cells capable of expressing said human HIV coreceptor into a plurality of groups;

b) introducing ~~predetermined progressively increasing~~ amounts of Product R at concentrations between 0 to 100% ~~, by volume~~, into said plurality of groups of said cells, respectively, by electroporation;

c) reverse-transcribing the mRNA of said HIV coreceptor of each said groups of said cells by a reverse transcription-polymerase chain reaction (RT-PCR) to produce an RT-PCR product;

d) measuring the amount of said RT-PCR product produced from each said group of said cells; and

e) comparing each said amount of said RT-PCR product produced from each said group with each other, whereby a smaller amount of said RT-PCR product correlates a lower level of said gene expression, wherein Product R is made by a process comprising the steps of:

a') mixing 33.8 to 38.8 ~~parts by weight~~ grams of casein, 15.3 to 20.3 ~~parts by weigh~~ grams of beef peptone, 20.3 to 25.3 ~~parts by weight~~ grams of ribonucleic acid (RNA), 0.9 to 5.9 ~~parts by weight~~ grams of bovine serum albumin and 0.1 to 5.1 ~~parts by weight~~ 2437.5 to 2562.5 grams of water and 14.6 to 19.6 ~~parts by weight~~ grams of sodium hydroxide;

b') autoclaving the mixture from said step a' until RNA is completely digested;

c') cooling the product from said step b' for at least six hours at 3-8 °C, said cooled product comprising solids;

d') removing said solids from the product from said step c';

e') adding water to the product from said step d' to create a final volume of about 5 liters; and

f) adjusting the pH of the product from said step e' to a physiologically acceptable pH range pH 7.3-7.6.

8. (Previously presented) The method of claim 7, wherein said cells capable of expressing said HIV coreceptor are selected from the group consisting of H9 and U937 cell lines.

9. (Previously presented) The method of claim 1, wherein said cells capable of expressing said HIV coreceptor are selected from the group consisting of H9 and U937 cell lines.